

# India's growth: Perspectives for Indo-European Business

## “Skilled labour in India: Bridging the gap”

Heike Trost

ESB Business School, Reutlingen University

### ***Abstract***

*For German enterprises identifying India as a strategic distribution market means building up their own market presence. Without suitable personnel (in terms of personal qualifications and skills), though, company success is a matter of luck. Or to put it in scientific wording: The success of the chosen distribution strategy is positively correlated with the qualification profile of both the personnel of the home country and the target country.*

*Whereas India's academia and the Indian Government recognised India's shortage of skilled labour years ago<sup>1</sup>, we have not been able to find significant studies about how this gap hinders especially German companies to develop India's potential as a distribution market.*

*The following paper is based on a survey conducted for ESB Business School and will show how German companies perceive India's labour market. Besides existing geographical and sectoral gaps we will reveal gaps in the required qualification profile. Thinking merely of hard qualification factors like education levels, skills etc., though, would be short-sighted. Often cited intercultural qualifications also play an important role.*

*What can be done? What should be done to bridge these gaps? These will be the leading questions of chapter 3. We will discuss some solutions – not forgetting that the problems German companies face are complex and knowing there is no ideal way. However, we will see that some of the most urgent problems can be solved or reduced by Indo-European or Indo-German co-operation models in the field of vocational training and institutions of higher education.*

## 1. Introduction

In recent years internationally active enterprises have had a rather clear mindset with – to keep it short and simple – Asia and Africa for sourcing and the US and Europe for distribution, which nourishes the thesis that a homogenous culture, in terms of language and religion, makes export activities easier for enterprises.

The geographical playground, though, is changing and is gaining even more dynamic with upcoming PTAs (such as the EU-Korean PTA which was signed in 2010 or the Indo-European FTA which is to be signed within the next year or two).

The long-term strategy for German enterprises concentrating on India as a distribution market usually means to be present in the market with an “own face”. In order to collect a first and fundamental market experience, though, a company will rather choose a penetration strategy which goes along with less capital tie-up.

Independent of the penetration strategy and the penetration intensity, an enterprise has to be aware of its own internationalization competencies. The chosen distribution strategy depends on both the intended internationalization measure and the degree of resources bound in the export market.

Building up internationalization competencies is a sine qua non and basically independent of a distribution policy. As sufficient condition we can define different competency dimensions and in doing so we have to consider the degree of internationalization. In this context we (and exporting companies) have to answer the questions shown in table 1.

**Table 1: Competency Dimensions**

<i>Guiding questions</i>		<i>Aspects to be considered</i>
Target country	⇒	political/economic/cultural/ legal aspects ↓ country/religion/location
Who is the team to set up the distribution structure?	⇒	infrastructure influence, information as well as judicial /fiscal aspects, capital tie-up and risk degree, mode of recruitment and personnel care ↓ mode of possible partnerships and distribution structures
How should distribution be structured?	⇒	Organization structure of the home country vision and mission controlling/ corporate management business ethics/corporate responsibility ↓ mode of possible partnerships and distribution and organization structures
Who supports the distribution structure (internally and externally)?	⇒	language skills/nationality mobility willingness to learn recruitment possibilities/compensation ↓ personal and professional support in both home and foreign market
How is the distribution structure supported with tangible goods (internally and externally)?	⇒	market and market environment internal and external communication offers and price policy ↓ marketing and distribution channels
Financial limits of internationalization	⇒	currency/exchange rates/inflation/currency convertibility taxes and treatment of wins and losses corruption/ bribery promotion of investment by the home and foreign country ↓ funding/cash flow

*Source: compiled by the author.*

German enterprises have to find answers to these (and other) questions in a changing world in order to be successful in religious and cultural surroundings that differ from their home and their “old” export markets. And it might not be sufficient to reduce one’s export strategy to the often cited intercultural aspects. We assume that there is a positive correlation between the factors “realm of culture “ and “face/represent ative of the company“ with regard to the export structure in the foreign country. Table 1 underlines that a successful export strategy depends on the individual answers a company finds when dealing with its competency dimensions. There is no ideal way to follow – it would, indeed, be too simple. The result is a matrix which combines the strengths and weaknesses of a company with the cultural dimensions of every target market. In the end a company might have to rethink the export strategy for each realm of culture individually. Table 1 provides us with a second hint: It might be decisive for a German company

to solve all related questions for its home organization, too. If the German enterprise does not find the suitable staff to support its targets in terms of

- personalities who match the German company philosophy/business ethics etc.
- skills and knowledge
- and financial compensation questions

a German enterprise might not be successful in gaining ground in the foreign market. Following the question “Skilled labour in India: Bridging the gap” we will examine which gaps German enterprises identify when working actively with India as an export market. A further step will be to discuss possibilities of how these gaps could be closed or at least diminished.

## **2. Personnel requirements of German enterprises**

### *2.1 Qualifications, skills and flexibility*

Following a KPMG study<sup>2</sup>, German SMEs identify some bottleneck factors in their home market: availability of highly qualified labour, lower non-wage labour costs, a flexible labour law and flexible working hours and – by far – an efficient placing service and mobility of labour force.

Personnel requirements gain even more relevance as German enterprises are known as innovation drivers. KPMG found out that German enterprises invest more in research and development (R&D) than the European average. Moreover, German companies choose the way of R&D co-operations above average whereas other European companies prefer mergers and acquisitions for gaining access to innovations.<sup>3</sup>

As long as the market is used for sourcing we can assume that the availability of sourcing material is the restrictive factor. When looking at the foreign market from the distribution side, however, we assume that the factor availability of highly qualified, mobile and time- flexible labour supply will gain importance. If we look at the Indian market in order to assess its attractiveness for German companies, we have to examine whether the Indian labour market fulfills the requirements and needs.

## 2.2 *Labour Market and sectoral compensation structure in India*

R. Nagaraj (2007)<sup>4</sup> points out that the service sector remains India's dominant sector. Besides the fact that productivity rose in Industry 1980-2000 the share of the manufacturing employment did not increase significantly. Moreover, the increase in wages was perceptually lower in the Industry sector than in other sectors, to name the public sector as example.

This means for export-oriented German companies

1. A skilled labour force in the Industry sector is rather scarce.
2. Per-capita-productivity in the Industry sector has risen perceptibly.
3. The real wage level in the Industry sector is coming increasingly under pressure.

Let us have a closer look at India's macro-economic data and then discuss how India's current macro-economic situation supports our findings before we examine what it means for the availability and quality of the Indian workforce.

First, differences between India and Germany are revealed very quickly. We will have to decide whether these differences mean chances or risks for the economic development of the country.

**Table 2: Relevant macro-economic data for Germany and India**

	Germany	India
Economic power	Fourth largest economy in the world with a GNI of 3.49 bn US-\$ World's second largest export nation	Tenth largest economy in the world with a GNI of 1.37 bn US-\$ second most populous country in the world
Per capita income	42,560 US-\$	3,339 US-\$
Economic structure	Highly-specialized and export-oriented SMEs being the job motor in Germany (employs about 70% of working population) with declining growth rates in the "traditional" markets	Highly-specialized service sector has been the job motor for many years (with software solution exports to more than 90 countries and a GDP contribution of 55%) with declining growth rates Beitrag zum GDP (2009): 55%
R&D and qualification profiles	Germany spends 2.6% of its GDP on R&D and has registered 11% of worldwide patents Percentage of graduates > 20% Literacy rate 99% and more	Percentage of graduates < 5% Literacy rate 74% (growth of 9.2% in a decade)

Sources: World Bank. *World Development Report 2011* and Bundesagentur für Außenwirtschaft. *Lohn und Lohnnebenkosten Asien/Pazifik*. <http://www.gtai.de/DE/Content/bfai-online-news/2007/011/medien/s1-lohnkosten-asien-pazifik,templateId=raw,property=publicationFile.pdf/s1-lohnkosten-asien-pazifik?show=true>

The figures in table 2 indicate that due to the highly different per-capita income there is a comparative cost advantage for German enterprises going to India. And these labour cost aspects

could even underline India's significance as a distribution country for German enterprises. This thesis is also supported by the figures in tables 3a to 5.

**Table 3a Earnings and labour costs/ Gross hourly earnings of production workers in manufacturing 2007**

Land/Country	US-Dollar/ US-Dollar	Landeswährung/ National currency	Land/Country	US-Dollar/ US-Dollar	Landeswährung/ National currency
<b>Europa/Europe</b>			<b>Amerika/America</b>		
Deutschland/Germany . . . . .	30,16	EUR 22,00	Brasilien/Brazil . . . . .	4,03	R\$ 7,85
Belgien/Belgium . . . . .	24,87	EUR 18,14	Kanada/Canada . . . . .	23,15	C\$ 24,85
Dänemark/Denmark . . . . .	37,06	DKr. 201,70	Mexiko/Mexico . . . . .	2,15	Mex\$ 23,52
Finnland/Finland . . . . .	26,78	EUR 19,53	Vereinigte Staaten/United States . . . . .	19,17	US-\$ 19,17
Frankreich/France . . . . .	19,45	EUR 14,18	<b>Asien/Asia</b>		
Griechenland/Griechenland . . . . .	13,28	EUR 9,68	<b>China/China</b>		
Irland/Ireland . . . . .	24,88	EUR 18,14	Hongkong/Hong Kong . . . . .	5,29	HK\$ 41,27
Italien/Italy . . . . .	19,57	EUR 14,28	Taiwan/Taiwan . . . . .	5,64	NT\$ 185,10
Luxemburg/Luxembourg . . . . .	26,50	EUR 19,32	Israel/Israel . . . . .	11,85	NIS 48,99
Niederlande/Netherlands . . . . .	26,43	EUR 19,28	Japan/Japan . . . . .	16,23	¥ 1 911,00
Norwegen/Norway . . . . .	39,68	Nkr 232,40	Korea, Republik/Korea, Republic of . . . . .	13,18	₩ 12 244,00
Österreich/Austria . . . . .	26,25	EUR 19,14	Philippinen/Philippines . . . . .	0,94	₱ 44,15
Polen/Poland . . . . .	5,11	Zł 14,32	Singapur/Singapore . . . . .	7,16	S\$ 10,78
Portugal/Portugal . . . . .	6,65	EUR 4,85	<b>Australien und Ozeanien/Australia and Oceania</b>		
Schweden/Sweden . . . . .	24,11	skr 162,90	Australien/Australia . . . . .	23,88	A\$ 28,45
Schweiz/Schweiz/Switzerland . . . . .	27,45	Sfr. 32,94	Neuseeland/New Zealand . . . . .	16,48	NZ\$ 22,38
Spanien/Spain . . . . .	15,54	EUR 11,34			
Tschechische Republik/Czech Republic . . . . .	6,01	Kč 123,40			
Ungarn/Hungary . . . . .	5,75	Ft 1 064,00			
Vereinigtes Königreich/United Kingdom . . . . .	23,40	£ 11,69			

Source: Statistisches Bundesamt. Statistisches Jahrbuch 2010. Wiesbaden: 2011

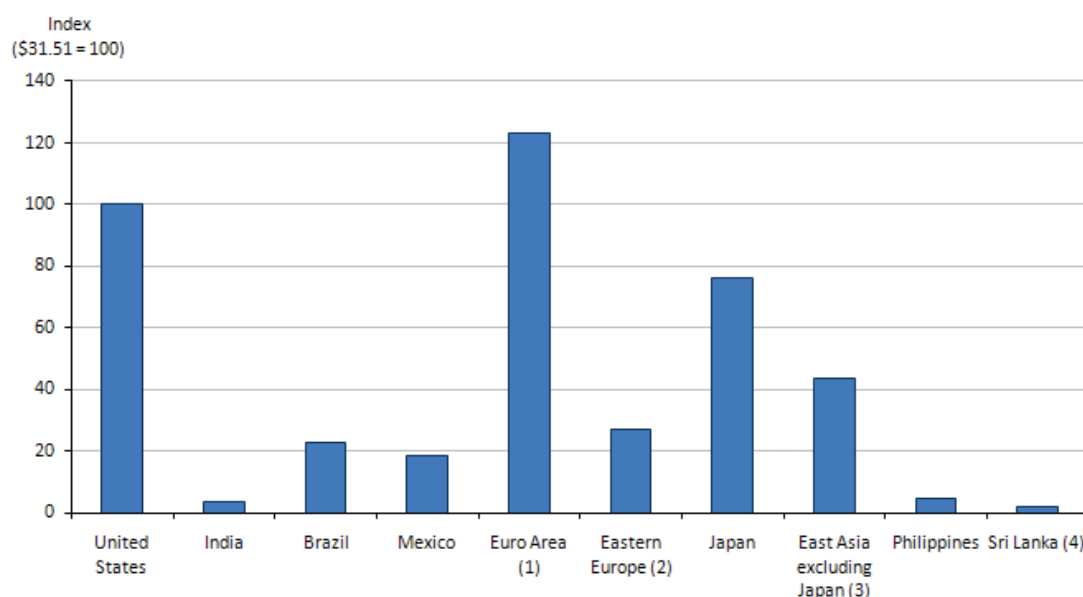
If we define the US-American wages per hour as 100 we find the following picture for the labour cost index in the year 2007 which is illustrated in table 3b.

There is one additional interesting fact on the earnings in the Industry sector. Whereas the per-capita earnings in Germany are perceptionally above average we will find a different picture for India with per-capita earnings that are far below. We have to examine whether this finding encourages or hinders German companies to find and attract well-skilled personnel.

**Table 3b: Wages per hour – an international comparison (2007)**

**Mean total hourly compensation cost of manufacturing employees, selected countries and regions, 2007**

(Index, United States = 100)



(1) Euro Area refers to European Union member countries in the BLS series that have adopted the Euro as the common currency as of January 1, 2009. These countries are: Austria, Belgium, Estonia, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Slovakia, and Spain.

(2) Eastern Europe refers to the Czech Republic, Estonia, Hungary, Poland, and Slovakia.

(3) East Asia ex-Japan includes the Republic of Korea, the Philippines, Singapore, and Taiwan.

(4) Data are for production workers.

NOTE: Hourly compensation cost estimates for India are not directly comparable with estimates for other countries.

SOURCE: U.S. Bureau of Labor Statistics, Division of International Labor Comparisons

Note: See Sincavage, J.R./Haub, C./Sharma, O.P. Labour Costs in India's organized manufacturing, Monthly Labour Review, May 2010. For 2006-2007, data were estimated by the Division of International Labour Comparisons using the sources and methodology described in the article. Source: United States Department of Labor, Bureau of Labor Statistics, <http://www.bls.gov/fls/india.htm#charts>; last visit: 30.8.11.

**Table 3c: Hourly compensation costs in India's organized manufacturing sector (1999-2007)**

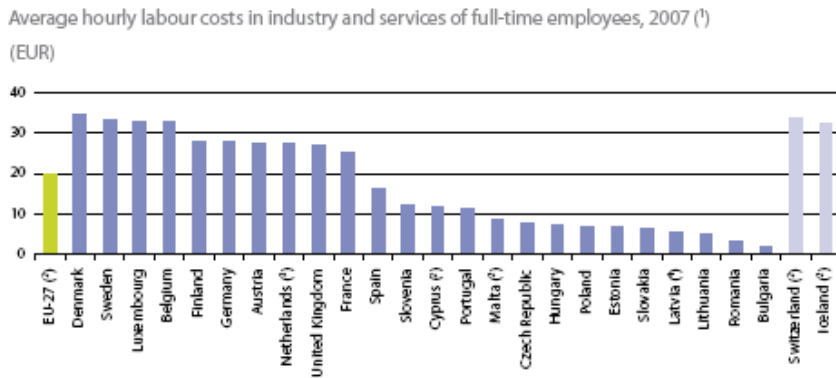
**Hourly compensation costs in India's organized manufacturing sector, 1999-2007**

Year	Mean hourly earnings in rupees (hourly pay for time worked)		Hourly compensation in rupees		Hourly compensation in U.S. dollars	
	All employees	Production workers	All employees	Production workers	All employees	Production workers
1999	20.68	15.97	29.43	22.72	0.68	0.53
2000	22.54	16.97	31.68	23.86	0.70	0.53
2001	23.77	17.57	33.65	24.88	0.71	0.53
2002	24.95	18.22	35.36	25.83	0.73	0.53
2003	26.58	18.98	37.68	26.91	0.81	0.58
2004	27.57	19.46	38.55	27.21	0.85	0.60
2005	29.10	20.06	40.02	27.60	0.91	0.63
2006	31.37	21.18	43.07	29.08	0.95	0.64
2007	35.46	23.25	48.30	31.67	1.17	0.77

Note: See Sincavage, J.R./Haub, C./Sharma, O.P. Labour Costs in India's organized manufacturing, Monthly Labour Review, May 2010. For 2006-2007, data were estimated by the Division of International Labour Comparisons using the sources and methodology described in the article. Source: United States Department of Labor, Bureau of Labor Statistics, <http://www.bls.gov/fls/india.htm#charts>; last visit: 30.8.11.

**Table 4a: Average hourly labour costs in industry and services in Germany and Europe (2007)**

**Table 4b: Breakdown of labour costs in Germany and Europe (2007)**



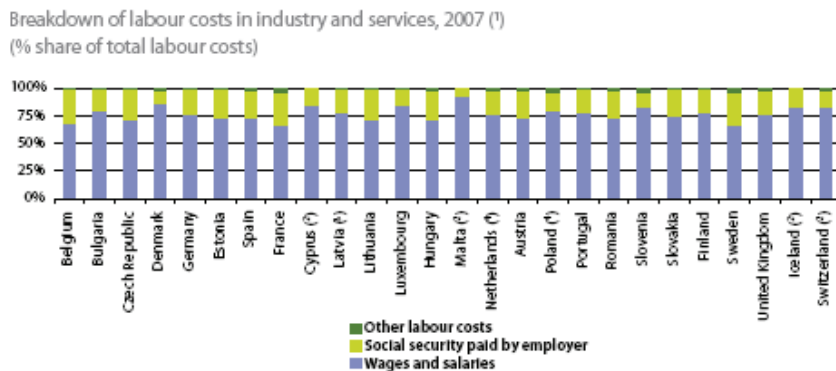
<sup>(1)</sup> Enterprises employing 10 or more employees; excluding agriculture, fishing, public administration, private households and extra-territorial organisations; Ireland, Greece and Italy, not available.

<sup>(2)</sup> 2006.

<sup>(3)</sup> 2005.

<sup>(4)</sup> 2008.

Source: Eurostat (tps00173)



<sup>(1)</sup> Enterprises employing 10 or more employees; excluding agriculture, fishing, public administration, private households and extra-territorial organisations; Ireland, Greece and Italy, not available.

<sup>(2)</sup> 2006.

<sup>(3)</sup> 2008.

<sup>(4)</sup> 2005.

Source: Eurostat (tps00115, tps00114 and tps00113)

Source: Eurostat. Europe in figures. Eurostat Yearbook 2010. Luxembourg: 2010, p.309.

If we compare Germany's and India's economic structures we have to fear that the given differences in these economies hinder the distribution strategies of German companies as they do not find a proper qualification structure being supplied by the Indian labour market. This is an aspect we should pay some attention to.

In order to become a distribution market in the highly innovative Industry sector the existence of comparative labour cost advantages per se is not sufficient. The sine qua non is the existence of well-skilled personnel suitably qualified for the right sector. The market, however, will only provide this labour force if the attractiveness of work in this sector is considerably higher. The attractiveness of a sector, however, is – amongst others – dependent on:

- the established and actual economic structure
- the structure of and access to education and vocational trainings



- and last but not least the job prospects and employment possibilities that are positively correlated with
    - the achievable compensation (salary/wage)
    - the reputation one can gain with doing the job
    - future perspectives
- to keep it short and simple...  
... attractiveness of the occupation

The labour market report, provided by the Indian Ministry of Labour in 2009, reveals three classes of issues: India's labour market struggles with regard to geographical, sectoral and educational discrepancies both with regard to vocational training and India's academia. The German Institution for Trade and Invest (2007) points out that only 25% of engineers trained in India are directly qualified for starting work in a German enterprise.<sup>5</sup>

Experts who have been educated internationally are scarce. And following the market rules they are perceptibly expensive. In the years 2007/08 the middle management could have a monthly income of between 35,000 INR and 125,000 INR. The Indian top management of a global player, though, could earn up to 8 m INR (2005), whereas the earnings of SMEs' top managers were relatively modest (appr. 250.000 INR).<sup>6</sup> Another obstacle to the setting up of a distribution structure emerges: We find a lot of highly innovative German SMEs that consider penetrating the Indian market with an own presence but cannot pay highest compensations to their Indian management and workers vis-à-vis the big players from Germany, Europe, the US or Japan. This might be a comparative disadvantage for German SMEs, too.

And SMEs face another problem. A problem widely spread amongst the so-called "hidden champions": There are numerous examples of German SMEs being innovative and market leaders in their niche segment, often not known "outside". Being innovation leaders requires highly and specifically skilled technical personnel which is difficult to find in India as we have seen earlier. Moreover, Indian experts often feel attracted to the "big names". Beside higher earnings, prestige also plays an important role. This was shown by an interview of ESB Business School, Reutlingen University with 23 Indian MBA graduates in 2010. We will take up this aspect later again.

### 2.3 *Labour market and professional qualifications*

For building up a distribution structure in a foreign country the availability of suitable personnel is a sine qua non. The high degree of technology German SMEs usually apply requires the recruitment of skilled and well-trained technical personnel both in the home and in the foreign market. The need for communication with the German parent company for both the administrative and the managerial staff makes the following inevitable:

- internationalization of company ethics and principles
- language skills
- knowledge of communication structures and conventions
- knowledge of taxation law (in India and Germany)
- knowledge of international accounting and book-keeping standards
- etc.

Accordingly, for the German “face” in a foreign market it is inevitable to know the rules and conventions of the target market. There might be consultants and agencies offering foreign trade services so that these competencies can be outsourced to a certain extent and for a certain time to bridge the gap.

Besides the cost factor outsourcing of competencies is also linked with a loss in relevant market information and controlling, so that a German company should think very carefully at this point. To be burdened with long-term costs in this field might be crucial, especially for SMEs. Moreover, the highly innovative SMEs need both knowledge about the market and the technical expertise, which they can only build up with own experts. Thus, the recruitment possibility of personnel in the target market is the restrictive factor.

What qualifications do German or European companies need besides technical expertise? An Austrian survey of 1,200 enterprises which we deem to be representative of other European companies – including the German companies – also shows that European companies expect some basic competencies and ethics when it comes to the acquisition of personnel.<sup>7</sup> Just to mention a few...

- willingness to learn
- problem solving competency and decision making skills
- focused on achievements, goals and targets
- communication strengths and face-to-face communication

- familiarity with business conventions

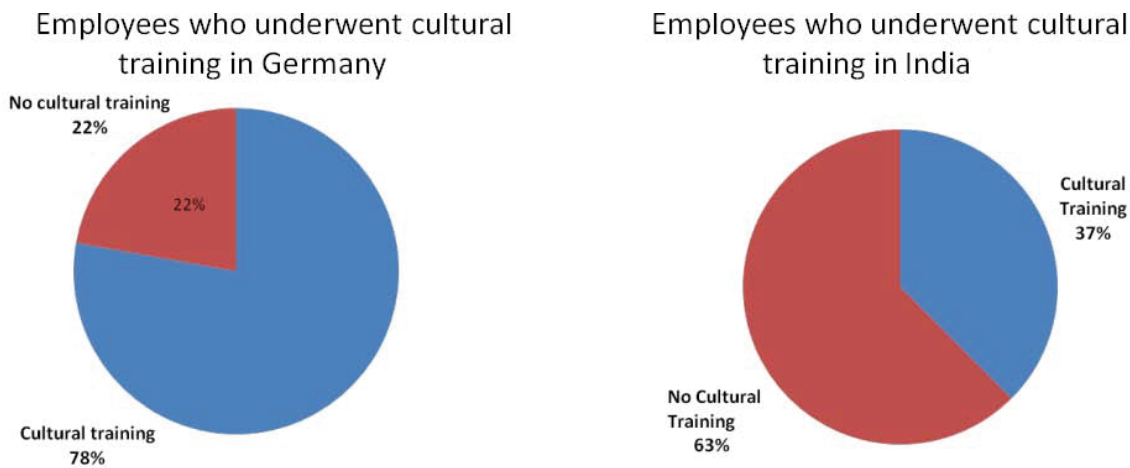
We have pointed out that there are geographical and sectoral gaps to be bridged (see: Labour Market report, provided by the Indian Ministry of Labour in 2009). Now we have to examine whether German companies find the needed professional qualification profile which makes Indian personnel employable for German companies with special focus on SMEs. Do German SMEs find the necessary qualifications? To a sufficient extent? And finally: Who provides the labour market with the qualified personnel? And do German SMEs have appropriate access to the market?

Comparing the educational levels in Germany and India we gain another important indicator.<sup>8</sup> Whereas the indicator “school expectancy”<sup>9</sup>, which is 17.2/17.6 years (2000/2007), is comparable to the European average with 16.7/17.2 years, the Indian value in both years is much lower and reaches only 48.8% and 56.8% of the German figures, respectively. Even compared to the world we find the Indian figures slightly below average. Tertiary enrollment in India<sup>10</sup> was 10% in 2000 and 13% in 2007 whereas Germany’s tertiary enrollment rate is around 46% according to UNESCO data files.

Table 2 showed India’s relatively low percentage of graduates compared to Germany – also internationally not too well placed in this field – and we know the shortage of Indian experts whose trainings followed international standards and consequently can be employed without additional time and effort for training– which makes them relatively expensive if we follow the market rules. These findings support our assumption that German companies have to bridge a qualification gap in India.

A 2011 survey made for a German SME which is to some degree representative reveals even more: Whereas the importance of intercultural trainings was comparably high in both companies with 33% (extremely important) and 63% (important) of the Germans and 12% (extremely important) and 67% (important) of their Indian colleagues there were only 37% of the Indian respondents who underwent an intercultural training and 78% of the Germans!

**Figure 1: Intercultural Training in Germany and India**



Source: Mishra, A. Cultural Differences in Germany and India. Presentation held on 19.7.2011 at ESB Business School, Reutlingen University, Germany.

How can German companies bridge these professional and intercultural gaps in a timely manner? Two solutions come very quickly to our minds: They can:

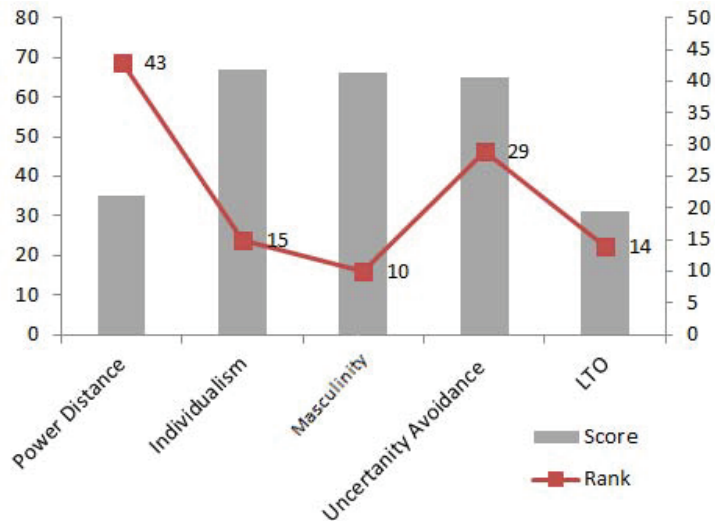
- either provide own trainings both in the field of vocational training and management trainings – which is very costly, but allows to provide the personnel with tailor-made knowledge or
- co-operate with suitable providers of education services - either in Germany (which again is very costly) or in India (where they might face the problem of not knowing how to assess the quality of the providers of education services)

We will come back to this later.

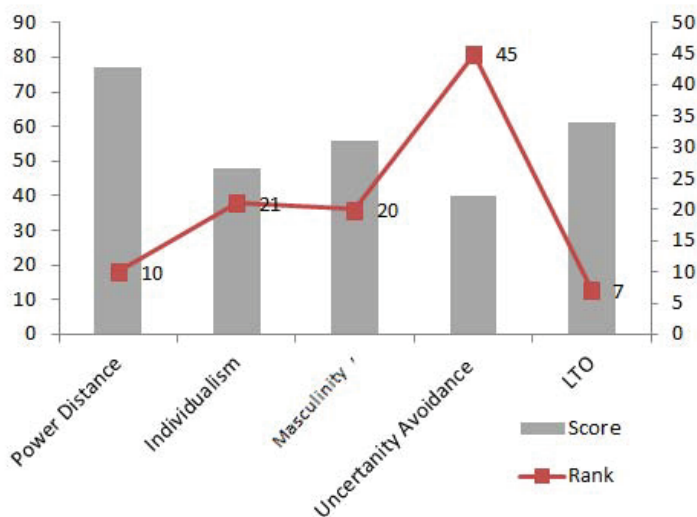
#### 2.4 *Labour market and intercultural competencies – An Indo-German comparison*

According to Geert Hofstede<sup>11</sup>, still one of the leading experts in the field of intercultural competencies, we find that Germany and India show a significantly different performance when we compare the intercultural dimensions.

**Figure 2a: Germany’s measure of cultural dimension**



**Figure 2b: India’s measure of cultural dimension**

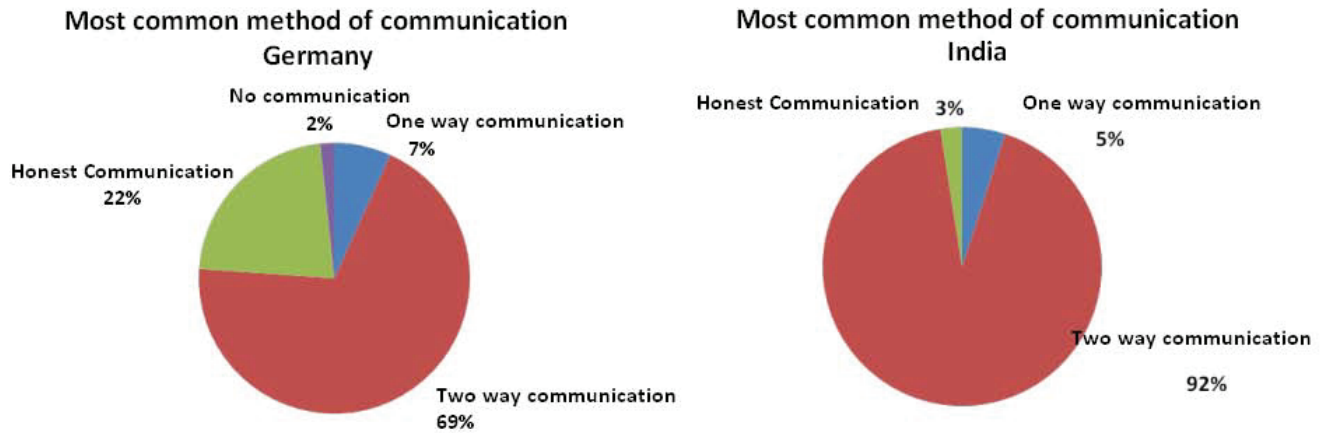


Source: Hofstede, G. Culture's Consequences – Comparing Values, Behaviors, Institutions and Organizations Across Nations. 2<sup>nd</sup> ed. London/Delhi: 2001.

Especially the aspects “Power Distance“, “Uncertainty Avoidance“ and “Long Term Orientation (LTO)“ differ significantly. G. Hofstede describes “**Power Distance**“ as “the extent to which less powerful member of organizations or institutions accept and expect that power is distributed unequally.” “**Uncertainty Avoidance**” means “a society’s tolerance for uncertainty and ambiguity. It indicates to what extent a society feels comfortable or uncomfortable in unstructured situations.” Finally “**Long Term Orientation**” can be said to deal with Virtue regardless of Truth. Values associated with Long Term Orientation are thrift and perseverance; values associated with Short Term Orientation are respect for tradition, fulfilling social obligations, and protecting one's 'face'.”<sup>12</sup>

Indeed, these cultural differences can be found in different communication ways, which can be proved by the comparison between the communication structures in the surveyed German SME and its Indian subsidiary (see figure 3).

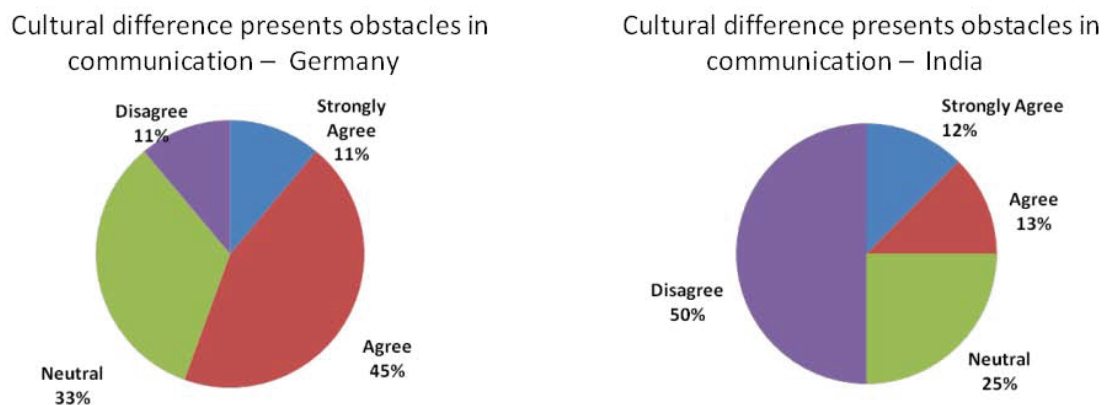
**Figure 3: Communication structures in Germany und India**



Source: Mishra, A. Cultural Differences in Germany and India. Presentation held on 19.7.2011 at ESB Business School, Reutlingen University, Germany.

Not surprisingly, these differences in communication methods are perceived as main obstacles in communication. But – and this is really remarkable – only from the German parent company’s side. Whereas far more than 50% of the German respondents agree that cultural differences are an obstacle in intercultural communication, more than 60% of their Indian colleagues do not agree.

**Figure 4: Communication method and intercultural differences**



Source: Mishra, A. Cultural Differences in Germany and India. Presentation held on 19.7.2011 at ESB Business School, Reutlingen University, Germany.

The findings reveal basic differences and we should analyze them: Looking at the German company we could find out that

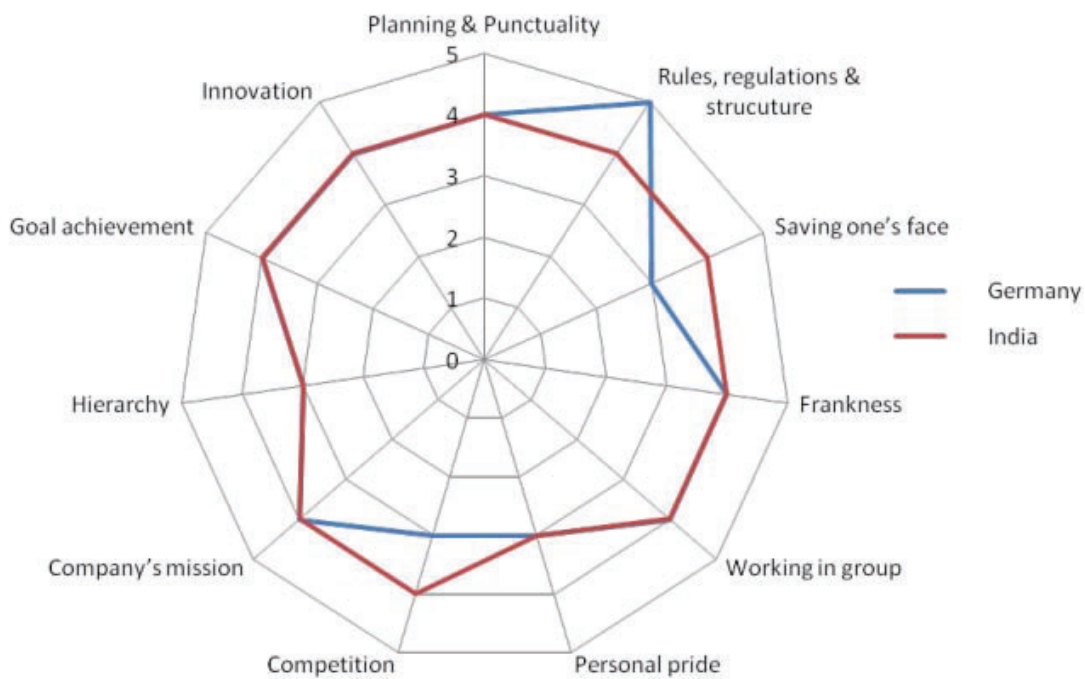
- 33 % of the respondents felt that the Indian colleagues lack the understanding of proper time lines and exhibit less decision making skills.

- 22% felt that they have a very hierarchic thinking and lack strategic thinking.

However, almost 25% of the Indian respondents felt that their German counterparts are inflexible and rigid, authoritative in nature and do not open up easily. Interestingly only 25% of the Indian respondents believe that cultural differences lead to obstructions in performance.

We take it as a proof that different communication methods (open versus saving one’s face) and a different understanding of hierarchy may be the triggering factors (see figure 4).

**Figure 5: Key drivers of organizational culture**



Source: Mishra, A. Cultural Differences in Germany and India. Presentation held on 19.7.2011 at ESB Business School, Reutlingen University, Germany.



### 3. How to Bridge the Gap

We could show the need for solutions in different areas. Ignoring the existing problems would put additional pressure especially on German SMEs that want to enter the Indian distribution market. On the other hand it would mean for the Indian market to lose development growth potential which would end up in comparative cost disadvantages for a market which has to develop rapidly for different inherent reasons (just to name the fast growing population).

We could identify different gaps which have to be bridged from India's labour market side. India cannot provide the market with

- the required **quantity** of skilled workers and academics
- the required **professional qualification structure**
- enough personnel accustomed to international requirements and **intercultural sensitivity**.

Moreover we find **geographical and sectoral gaps**– although they are not at the center of consideration that have to be bridged.

Last but not least there is a **prestige and perception problem** German SMEs have to face and bridge when they want to compete successfully with the big names for scarce people that have been trained according to international standards and are thus directly employable.

#### 3.1 *Provision of the right quantity of qualified personnel*

Existing education structures cannot be changed considerably in the short run. Moreover, because of the high growth rate of India's population more and more young people seek access to existing educational institutions. In the long run investments in educational infrastructure might be an efficient means. The Indian government is aware of these challenges. In 2010 Kapil Sibal, Minister of Human Resources Development, talked of a required total investment of \$400 billion in the education sector over the next decade and the Indian government is doing a lot (see table 5).<sup>13</sup>



**Table 5: Budgeted expenditure (revenue account) on education 2005-2006**

S. No.	STATES/UTS	Total Budget (Centre/States) (Rev. Account) 2005-06	Expenditure (Rev. Acct) on Edu. & Trg. By Edu. and other Deptts. 2005-06	Projected Population as on 01-03-2005	Per Capita Expenditure	% age of Expenditure on Edn. & Trg. by Edu. and other Deptts. To Total Budget
		(Rs. In Crore )		(In Crore)	(In Rs.)	
	States/UTs Total	449952,96	90018,94	107,90	834,28	20,01
	Central	439761,00	23209,77			
	INDIA(G. TOTAL)	889713,96	113228,71	107,90	1049,39	12,73

Source: <http://education.nic.in/>, last visited 20.9.2011.

There is an international awareness and responsibility facing these educational challenges, too. In 2008 the European Union, e.g., earmarked a €33 million budget for India that allowed the Erasmus Mundus programme to provide new opportunities, thus enabling more than one thousand Indian graduates to study in Europe between 2004 and 2007. The Erasmus Mundus II programme has extended cooperation even further.

Aware of the various problems India is facing the European Union has allocated €470 million between 2008 and 2013 to reinforce the work done by the Indian authorities to reduce poverty and achieve the Millennium Development Goals. With a budget of €180 million allocated by 2010, basic health and education have a key priority.<sup>14</sup> National education programmes like the German “A New Passage to India” have provided a further annual budget of € 4.3 Mio since 2007.<sup>15</sup>

Nevertheless, latest research work shows a necessity for solutions that are effective in the short run. We know, however, how difficult it is to bridge both the time and the quantity requirements in the educational system. We also know of course that this is a major challenge which normally calls for a high assignment of money and resources. Taking this into consideration we do not see any further scope of development. And even if there were any room for further funds, we could not solve the related time-lag problem.

### 3.2 *Provision of the right qualification structure*

Following the opportunity cost model we assume that there will be a change in the qualification structure of skilled personnel as soon as there is a positive return on investment for the people.

As variables of the model we can define the personnel which has to be educated/qualified/trained and the companies on the demand-side and finally providers of education services on the supply-side.

### 3.2.1 *The “demand-side”: personnel and companies*

Taking into consideration what we found in section 2.2 we know: The decision for a certain qualification structure follows the attractiveness of the occupation. The attractiveness, however, is positively correlated with factors like income, prestige and future perspectives. Whereas the factor future perspectives seems to be uncritical we learn from section 2.2 that the hourly compensation in India’s Production Sector is considerably lower than in the Service sector. To bridge the gap a certain levelling of average incomes in different sectors seems to be inevitable for the Producing sector in order to compete successfully against the other sectors. This means a necessary increase in hourly compensation in the Production sector – a problem for all German SMEs that decide for India because of comparative cost advantages and a problem for India which is one chainlink in the global competition of sites. Following this argument we believe that an increase in hourly compensations has to go along with an increase in labour productivity if India does not want to lose its attractiveness for German and/or European enterprises.

We define an increase in productivity as an increase in output with constant factor costs whereupon the output can be increased quantitatively or qualitatively. At this point we come back to what we stated in chapter 1: The more importance India gains as a distribution market and the more the Indian market is “mature” for highly sophisticated technical solutions offered by German enterprises the more central a qualitative increase in productivity will be.

On the other hand we know: Only 25% of Indian engineers are directly employable for international companies.<sup>16</sup> We can assume that the employability quota of skilled workers is considerably lower. How can we bridge this gap?

In section 3.1 we pointed out that we do not expect changes of the qualification structure in the short run – neither concerning vocational education nor for academics. Moreover, we have to remember prestige problems the Industry Sector has to face in general and German SMEs in particular. This leads us to the assumption that the market mechanism does not provide any solution in the short run and limits the possibilities of German enterprises. German SMEs can

- **work with the existing qualification level,**  
what we feel is suboptimal because this limits companies to a certain productivity

level and hinders India to become a distribution market for highly innovative German or European companies;

- **offer own education and vocational training,**  
what we see as an option if the degree of internalization and the company size AND the market potential are considerably high. There are positive examples (Würth or Festo can be named – among others), but these success stories are selective, need a long time and capital tie-up and are quantitatively not suitable to provide the overall qualification demand.
- And last but not least we can identify **educational institutions** on both the vocational and the academic level that know the demand German enterprises have and can respond to the demands as problem solvers. There are private as well as public providers of education services both in India and from other countries at vocational and academic level.

Let us keep our attention focused on what we have just discussed as we think it is central to how to bridge the gap.

There are numerous possibilities of how co-operation between enterprises and educational institutions can be customized with effects on the:

- capital needs
- possibility to influence/tailor-make educational and vocational contents and durations and
- overall quality aspects of education/vocational trainings

for both education/work seeking people and enterprises.

These findings lead us to suggest an action plan that can come quickly and easily into practice. There is still room for co-operations in the field of education and training: We interviewed several German SMEs who intend to or have entered the Indian market. We found out that German SMEs are usually not informed about German or Indian educational institutions providing the range of activities geared towards supporting industry in the Indo-European or Indo-German context. On the one hand we assume that companies face a certain lack of awareness, on the other hand we feel that educational institutions face a lack of visibility. We favor building up a central database where educational/training institutions can present their range of services. A quick internet reference and visibility are crucial factors. Therefore the database should be located where companies intuitively search for

information (embassies, chambers of commerce). A practical solution should take at least the following aspects into consideration:

- in order to support companies from the very beginning the database should be non-commercial (being part of a governmental export promotion programme)
- the data management should be done professionally and on a regular basis
- and – very important – a supervising agency should be implemented which provides consistent standards and evaluation methods valid for both countries to certify that education/training institutions know the
  - o needs of personnel seeking enterprises
  - o personal and skill-wise potential of the potential labourforce, and finally
  - o international education and training standards.

We could also think of promotions in the field of R&D co-operations – either by pooling enterprises or between enterprises and education/training providers. However, the more tailormade learning opportunities are configured the more intellectual property rights come into play.

### 3.2.2 *The “supply side“: providers of (higher) education and vocational trainings*

The supply side faces similar problems as identified in section 3.2.1. Accordingly we can work with similar solutions which have the side-effect that both market sides can benefit from one package of measures. Taking the aspect “financial viability“ into consideration this might be crucial.

Let us analyze briefly the current situation for providers of (higher) education and vocational trainings in Germany and India:

**Table 6: Current situation of German and Indian vocational training centres and institutions of (higher) education**

<b>Classes of issues</b>	<b>German providers</b>	<b>Indian providers</b>
<b>Knowledge of educational needs of German companies</b>	Present	Partly present
<b>Knowledge of educational needs of Indian companies</b>	Partly present	Present
<b>Attraction of teachers and professors</b> <ul style="list-style-type: none"> <li>• <b>in the home market</b></li> <li>• <b>in the guest market (India resp. Germany)</b></li> </ul>	Possible  Difficult because of an overall lack of qualified teachers and professors	Difficult because of an overall lack of qualified teachers and professors Partly difficult because of skill and language deficits
<b>Attraction of apprentices and students</b> <ul style="list-style-type: none"> <li>• <b>on the quantity side</b></li> <li>• <b>on the quality side</b></li> </ul>	Knowledge of education market inevitable	Good For highly ranked and reputable institutions possible
<b>Visibility</b> <ul style="list-style-type: none"> <li>• <b>in the home market</b></li> <li>• <b>in the guest market (India resp. Germany)</b></li> </ul>	Very good Limited	Good Limited
<b>Cross approval of educational achievements</b>	Very limited according to existing Indian Law	Limited according to existing German Law

Source: compiled by the author.

What are our conclusions? What our recommendations? We quickly perceive that the ideas we presented under section 3.2.1 are quite promising. Indo-German co-operations in all fields of education could resolve most of the current weaknesses if some aspects are considered: The co-operation model should work *pari passu* in order to use comparative advantages out of both educational systems. However, we recommend that joint educational efforts should be both accredited by an independent and reputable institution and state-approved – a recommendation that goes along with changes concerning matters of educational policy in both countries. And finally we can define visibility as a success factor: Only if the companies have access to the relevant information can they make use of the educational offers.

There is an aspect that is not directly linked with the measures above but is nevertheless important: The attraction of teaching staff and their training might be a further factor. We all know the efforts which have been made on national levels as well as supported by the EU. There are further education training programmes for teachers and international exchanges of professors, which are indeed important. But from our point of view it is questionable whether the supply meets the demand quantitatively. We are convinced that the world wide web with its multimedial technical solutions plays a major role in this context. Web based train-the-trainer- and teach-the-teacher-seminars, ideally combined with some physical presence in the target country, might bridge the gap qualitatively, quantitatively and with a view to cost efficiency and

time aspects. Some pioneers among educational institutions are aware of this market segment and have started their contribution. And of course we have to keep in mind: Virtual educational institutions have to follow the same quality standards and need the same visibility as “physical” institutions.

### 3.3 *Development of personal qualification*

It is challenging to develop personal qualifications quantitatively within a short time period. Earlier we stated a tradeoff between time and quantity with regard to changes of existing educational structures. Consequently enterprises seemingly are obliged to handle this education spectrum. The thesis is nourished by the fact that a lot of interpersonal and intercultural factors have – beside language issues – direct consequences for the company’s culture and ethics. However, development, implementation and execution of individual trainings are costly and bind resources what might exceed especially the means of SMEs. Taking this into consideration we opt for co-operation models again. The co-operation between Reutlingen University, Germany, and SPJIMR Mumbai which led to the foundation of the Centre of European Business Studies (CEBS) in 2009 might show how co-operation can work:

The Centre engages in a range of activities geared towards supporting industry, academia and scholars with a joint study programme with special concern to Europe-related and intercultural issues. The scholars leave with a post graduate certificate from SPJIMR and an MBA from Reutlingen University. The Master’s thesis is commonly pursued with and for a company or business association the students contact within the 4 months the students time spent in Germany. This gives the companies the freedom and time to both “test” aspiring candidates, and to transmit the companies’ ethics and values. On the other hand the scholars learn the German language in parallel. Finally, they are well equipped to excel in both worlds and support companies to succeed and grow in Indo-European Business in both Europe and especially Germany and India which makes them interesting candidates for the labour market.

This might be only one example that illustrates how all parties benefit. There might be others. In the end it seems to be crucial to visualize best practice examples on an internet platform where companies find easy and intuitive access. This could support companies to find suitable and affordable options.

#### **4. Conclusion**

The company's success in a foreign market is positively correlated with the qualification profile of the personnel that can be acquired in the target country. However, companies often face not only qualification gaps but also have limited access to decisive information about qualification structures on the demand and on the supply side. Moreover, foreign companies often face prestige problems which is an additional obstacle for acquisition of suitable personnel. On the other hand there is a global competition between countries to attract foreign direct investments. The pressure to be attractive as a distribution market and not only as a sourcing market is persistently increasing.

We have pointed out various and genuine qualification gaps German companies have to face in India. We have talked about the increasing pressure for the Indian government and the necessity to find national solutions as well as international support. Last but not least we have pointed out how some of the problems might be allayed with relatively modest financial means. The factual height of the needed investment, however, should be analyzed separately.

## Tables and figures

### Tables

Table 1:	Competency Dimensions	62
Table 2:	Relevant macro-economic Data for Germany and India	64
Table 3a	Earnings and labour costs/ Gross hourly earnings of production workers in manufacturing 2007	65
Table 3b:	Wages per hour – an international comparison (2007)	66
Table 3c:	Hourly compensation costs in India’s organized manufacturing sector (1999-2007)	66
Table 4a:	Average hourly labour costs in industry and service in Germany and Europe (2007)	66
Table 4b:	Breakdown of labour costs in Germany and Europe (2007)	67
Table 5:	Budgeted expenditure (revenue account) on education 2005-2006	76
Table 6:	Current situation of German and Indian vocational training centres and institutions of (higher) education	80

### Figures

Figure 1:	Intercultural Training in Germany and India	71
Figure 2a:	Germany’s measure of cultural dimension	72
Figure 2b:	India’s measure of cultural dimension	72
Figure 3:	Communication structures in Germany und India	73
Figure 4:	Communication method and intercultural differences	73
Figure 5:	Key drivers of organizational culture	74



## References

- Baden-Württemberg International (ed.). Länderanalyse Indien. Republik Indien. Daten und Fakten. Download: [http://www.bw-foren.de/de/\\_files/Laenderanalyse\\_Indien\\_2010.pdf](http://www.bw-foren.de/de/_files/Laenderanalyse_Indien_2010.pdf)
- Bundesagentur für Außenwirtschaft (ed.). Lohn- und Lohnnebenkosten. 2007
- European Commission (ed.). EU-India summit in Marseilles: strategic partnership to tackle the major global challenges. Press Release IP/08/1413. Brussels: 26 September 2008
- Eurostat (ed.). Europe in figures. Eurostat Yearbook 2010. Brussels: 2010
- Eurostat (ed.). The EU in the world. A statistical portrait. Brussels: 2010
- Fieten, R./Friedrich, W./Lageman, B. Globalisierung der Märkte – Herausforderungen und Optionen für kleine und mittlere Unternehmen, insbesondere für Zulieferer. Gutachten im Auftrag des Bundesministeriums für Wirtschaft. Schriften zur Mittelstandsforschung. Nr. 73NF. Stuttgart: 1997
- Hofstede, G. Culture's Consequences – Comparing Values, Behaviors, Institutions and Organizations Across Nations. 2<sup>nd</sup> ed., London/Delhi: 2001
- KPMG (ed.). Wachstum und Industrialisierung mittelständischer Unternehmen. Deutschland im internationalen Vergleich – eine Studie. 2007
- Mishra, A. Cultural Differences in Germany and India. Presentation held on 19 July 2011 at ESB Business School, Reutlingen University, Germany: 2011
- Mitra, A. The Indian labour market: An overview, ILO Asia Pacific Working Paper Series. Subregional Office New Delhi: 2008
- Nagaraj, R. Labour Market in India. Current Concerns and Policy Responses. OECD Paper. Mumbai/New Jersey: 2007
- Schmid, K. Außenwirtschaft & Humanressourcen: Herausforderungen infolge der Internationalisierung. ibw research brief, No. 58/2010, Vienna: 2010
- Sincavage, J.R /Haub, C. /Sharma, O.P. Labour Costs in India's organized manufacturing. Monthly Labour Review. May 2010, pp. 3-22
- Statistisches Bundesamt. Statistisches Jahrbuch 2010. Wiesbaden: 2011

TeamLease and IIJT. India Labour Report 2009. New Delhi: 2009

The World Bank. India's employment challenge. Creating Jobs. Helping workers. Oxford Univ. Press. Oxford: 2011

## **Weblinks**

<http://www.bls.gov/fls/india.htm#charts>

<http://www.bw-foren.de>

<http://www.destatis.de>

<http://education.nic.in/>

<http://www.eurostat.eu>

<http://www.geert-hofstede.de>

<http://www.gtai.de>

<http://newdelhi.daad.de>

<http://www.oecd.org>

<http://www.uis.unesco.org>

<http://www.unesco.org/new/en/unesco/resources/online-materials/publications/unesdoc-database/>

<http://www.worldbank.org>

---

## Notes

- <sup>1</sup> See e.g. Mitra, A. The Indian labour market: An overview. ILO Asia Pacific Working Paper Series. Subregional Office New Delhi: 2008 or The World Bank. India's employment challenge. Creating Jobs. Helping workers. Oxford Univ. Press. Oxford: 2011. The paper also refers to Nagaraj, R. Labour Market in India. Current Concerns and Policy Responses. OECD Paper. Mumbai/New Jersey: 2007 and the India Labour Report 2009.
- <sup>2</sup> KPMG. Wachstum und Industrialisierung mittelständischer Unternehmen. Deutschland im internationalen Vergleich – eine Studie. 2007.
- <sup>3</sup> KPMG. Wachstum und Industrialisierung mittelständischer Unternehmen. Deutschland im internationalen Vergleich – eine Studie. 2007. p 13.
- <sup>4</sup> Nagaraj, R. Labour Market in India. Current Concerns and Policy Responses. OECD Paper. Mumbai/New Jersey: 2007.
- <sup>5</sup> Bundesagentur für Außenwirtschaft. Lohn- und Lohnnebenkosten. p. 45. Download: <http://www.gtai.de/DE/Content/bfai-online-news/2007/011/medien/s1-lohnkosten-asien-pazifik,templateId=raw,property=publicationFile.pdf/s1-lohnkosten-asien-pazifik?show=true>.
- <sup>6</sup> Bundesagentur für Außenwirtschaft. Lohn- und Lohnnebenkosten. p. 48. Download: <http://www.gtai.de/DE/Content/bfai-online-news/2007/011/medien/s1-lohnkosten-asien-pazifik,templateId=raw,property=publicationFile.pdf/s1-lohnkosten-asien-pazifik?show=true>.
- <sup>7</sup> Schmid, K. Außenwirtschaft & Humanressourcen: Herausforderungen infolge der Internationalisierung. ibw research brief. No. 58/2010. Vienna: 2010. p. 62.
- <sup>8</sup> See Eurostat (ed.). The EU in the world. A statistical portrait, Brussels: 2010. p. 26.
- <sup>9</sup> The statistical yearbook of the EU defines the school expectancy indicator as follows: The indicator of school expectancy corresponds to how many years, on average, a 5-year old child can expect to study at school.
- <sup>10</sup> According to the UNESCO definition the indicator sums up all tertiary level students that are enrolled at the start of the school year and expresses the percentage of the mid-year population in the 5 year age group after the official secondary school leaving age.
- <sup>11</sup> Hofstede, G. Culture's Consequences – Comparing Values, Behaviors, Institutions and Organizations Across Nations. 2<sup>nd</sup> ed. London/Delhi: 2001.
- <sup>12</sup> See <http://www.geert-hofstede.com/>, last visited 1.9.2011.
- <sup>13</sup> See <http://education.nic.in/>, last visited 20.9.2011.
- <sup>14</sup> See European Commission. EU-India summit in Marseilles. Strategic partnership to tackle the major global challenges, Press Release IP/08/1413, Brussels, 26 September 2008.
- <sup>15</sup> For more information please visit <http://newdelhi.daad.de/mainFrame/news/Mehrfart%207.html#2>, last visited 20.9.2011.
- <sup>16</sup> See Bundesagentur für Außenwirtschaft. Lohn- und Lohnnebenkosten, p. 45. Download: <http://www.gtai.de/DE/Content/bfai-online-news/2007/011/medien/s1-lohnkosten-asien-pazifik,templateId=raw,property=publicationFile.pdf/s1-lohnkosten-asien-pazifik?show=true>.